

Docket No.: 066821-0273



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Reed, John C., et al.  
Appl. No. : 10/781,294  
Filed : February 17, 2004  
Title : PAAD DOMAIN-CONTAINING  
POLYPEPTIDES, ENCODING  
NUCLEIC ACIDS, AND  
METHODS OF USE

Grp./A.U. : 1636  
Examiner: : T. McKelvey

Customer No.: 41552  
Confirmation No.: 4045  
CERTIFICATE OF MAILING (37 CFR. § 1.8(a))

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*[Handwritten signature of Sarah Nunez]*

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
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P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. Three (3) of the references are enclosed. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.

In accordance with 37 CFR 1.17(p), please charge the fee of \$180.00 to Deposit Account No. 502624.

01/26/2005 EABUBAKI 00000028 502624 10781.94

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The references marked with asterisks (\*\*) were cited by or submitted to the U.S. Patent and Trademark Office in parent application Serial No. 09/965,621, filed September 25, 2001, which is relied upon for an earlier filing date under 35 USC 120. Thus, copies of these references are not attached. 37 CFR 1.98(d).

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



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**Date: January 20, 2005**

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JAN 26 2005

# INFORMATION DISCLOSURE CITATION IN AN APPLICATION

**(Substitution for PTO-1449)**

ATTY. DOCKET NO.  
**066821-0273**

SERIAL NO.  
10/781.294

**APPLICANT**  
**Reed et al.**

FILING DATE  
February 17, 2004

GROUP  
1636

## **U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes -Number & Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation	
	**1	WO 01/61005	08/23/2001	John Bertin		Yes	No

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	**2	Aderem et al., "Toll-like receptors in the induction of the innate immune responses," <i>Nature</i> 406:782-787 (2000).
	**3	Aravind et al., "The domains of death: evolution of the apoptosis machinery," <i>TIBS</i> 24(2):47-53 (1999).
	**4	Bertin and DiStefano, "The PYRIN domain: a novel motif found in apoptosis and inflammation proteins," <i>Cell Death and Differentiation</i> 7:1273-1274 (2000).
	**5	Beutler, "Autoimmunity and apoptosis: The Crohn's connection," <i>Immunity</i> 15:5-14 (2001).
	**6	Carpentier et al., "TRAF1 is a TNF inducible regulator of NF- $\kappa$ B activation," <i>FEBS Letters</i> 460:246-250 (1999).
	**7	Chu et al., "A novel enhancer of the Apaf1 apoptosome involved in cytochrome c-dependent caspase activation and apoptosis," <i>J. Biol. Chem.</i> 276:9239-9245 (2001).
	8	Cohen et al., "IKAP is a scaffold protein of the I $\kappa$ B kinase complex," <i>Nature</i> , 395(6699):292-6 (1998).

EXAMINER	DATE CONSIDERED
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**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**1** Applicant's unique citation designation number (optional). **2** Applicant is to place a check mark here if English language translation is attached.  
\*\*Previously cited in parent application 09/865,621.

Previously cited in parent application US9965,621.

<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>		ATTY. DOCKET NO. <b>066821-0273</b>	SERIAL NO. <b>10/781,294</b>
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<b>(Substitution for PTO-1449)</b>		FILING DATE <b>February 17, 2004</b>	GROUP <b>1636</b>
**9	Damiano et al., "CLAN, a novel human CED-4-like gene," <i>Genomics</i> 75:77-83(2001).		
**10	Dawson and Trapani, "The interferon-inducible autoantigen, IFI 16:localization to the nucleolus and identification of a DNA-binding domain," <i>Biochem Biophys. Res. Commun.</i> 214:152-162 (1995).		
**11	DeYoung et al., "Cloning a novel member of the human interferoninducible gene family associated with control of tumorigenicity in a model of human melanoma," <i>Oncogene</i> 15:453-457 (1997).		
**12	Fairbrother et al., "The PYRIN domain: a member of the death domain-fold superfamily," <i>Protein Science</i> 10:1911-1918 (2001).		
**13	French FMF Consortium, The "A candidate gene for familial Mediterranean fever," <i>Nature Genetics</i> 17:25-31 (1997).		
**14	Hayashi et al., "The innate immune response to bacterial flagellin is mediated by Toll-like receptor 5," <i>Nature</i> 410:1099-1103 (2001).		
**15	Hlaing et al., "Molecular cloning and characterization of DEFCAP-L and -S, two isoforms of a novel member of the mammalian Ced-4 family of apoptosis proteins," <i>J. Biol. Chem.</i> 276:9230-9238 (2001).		
**16	Inohara and Nunez, "Genes with homology to mammalian apoptosis regulators identified in zebrafish," <i>Cell Death and Differentiation</i> 7:509-510 (2000).		
**11	Inohara et al., "Nod1, an Apaf-1-like activator of caspase-9 and nuclear factor-6B," <i>J. Biol. Chem.</i> 274:14560-14567 (1999).		
**18	Johnstone et al., "The human interferon-inducible protein, IFI 16, is a repressor of transcription," <i>J. Biol. Chem.</i> 273:17172-17177 (1998).		
**19	Jones, "GenTHREADER: an efficient and reliable protein fold recognition method for genomic sequences," <i>J. Mol. Biol.</i> 287:797-815 (1999).		
**20	Karin et al., "Phosphorylation meets ubiquitination: The control of NF- $\kappa$ B activity," <i>Ann. Rev. Immunol.</i> 18:621-663 (2000).		
**21	Karplus et al., "Hidden Markov models for detecting remote protein homologies," <i>Bioinformatics</i> 14(10):846-856 (1998).		
**22	Koonin and Aravind, "The NACHT family - a new group of predicted NTPases implicated in apoptosis and MHC transcription activation," <i>TIBS</i> 25(5):223-224 (2000).		
**23	Lawrence et al, "Detecting subtle sequence signals: a Gibbs sampling strategy for multiple alignment," <i>Science</i> 262:208-214 (1993).		
**24	Lee et al., "COP, a caspase recruitment domain-containing protein and inhibitor of caspase-1 activation processing," <i>J. Biol. Chem.</i> 276:34495-34500 (2001).		
**25	Lennon et al., "The I.M.A.G.E. consortium: an integrated molecular analysis of genomes and their expression," <i>Genomics</i> 33:151-152 (1996).		
**26	Martinet et al., "The pyrin domain: a possible member of the death domain-fold family implicated in apoptosis and inflammation," <i>Current Biology</i> 10(4): R118-R120 (2001).		
**27	Masumoto et al., "ASC, a novel 22-kDa protein, aggregates during apoptosis of human promyelocytic leukemia HL-60 cells," <i>J. Bio. Chem.</i> 274(48):33835-33838 (1999).		
**29	Masumoto et al., "Pyrin N-terminal homology domain- and caspase recruitment domain-dependent oligomerization of ASC," <i>Biochem. Biophys. Res. Commun.</i> 280(3):652-655 (2001).		
**29	Masumoto et al., "Murine ortholog of ASC, a CARD-containing protein, self-associates and exhibits restricted distribution in developing mouse embryos," <i>Exp. Cell Res.</i> 262(2):128-133 (2001).		
**30	Pawlowski et al., "PAAD - a new protein domain associated with apoptosis, cancer and autoimmune diseases," <i>TIBS</i> 26(2):85-87 (2001).		
**31	Pras, "Familial mediterranean fever: from the clinical syndrome to the cloning of the pyrin gene," <i>Scand. J. Rheumatol.</i> 27:92-97 (1998).		
32	Reed et al., "A strategy for generating monoclonal antibodies against recombinant baculovirus-produced proteins: application to the Bcl-2 oncoprotein," <i>Anal Biochem.</i> 205(1):70-6 (1992).		
**33	Rost et al., "PHD - an automatic mail server for protein secondary structure prediction," <i>CABIOS</i> 10:53-60 (1994).		

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APPLICANT <b>Reed et al.</b>			
(Substitution for PTO-1449)		FILING DATE <b>February 17, 2004</b>	GROUP <b>1636</b>
	**34	Ruiz-Opazo et al., "Identification of a novel dual angiotensin II/vasopressin receptor on the basis of molecular recognition theory," <i>Nature Med.</i> 1:1074-1081 (1995).	
	**35	Rychlewski et al., "Comparison of sequence profiles. Strategies for structural predictions using sequence information," <i>Protein Science</i> 9:232-241 (2000).	
	**36	Sali and Blundell, "Comparative protein modelling by satisfaction of spatial restraints," <i>J. Mol. Biol.</i> 234:779-815 (1993).	
	**37	Staub et al., "The DAPIN family: a novel domain links apoptotic and interferon response proteins," <i>TIBS</i> 26(2): 83-85 (2001).	
	**38	Takeuchi et al., "TLR6: A novel member of an expanding Toll-like receptor family," <i>Gene</i> 231:59-65 (1999).	
	39	Tao et al., "Bcl-xS and Bad potentiate the death suppressing activities of Bcl-xL, Bcl-2, and A1 in yeast," <i>J. Biol. Chem.</i> 273(37):23704-8 (1998).	
	**40	Thompson et al., "CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice," <i>Nucleic Acids Research</i> 22 (22):4673-4680 (1994).	
	**41	van der Biezen and Jones, "The NB-ARC domain: a novel signalling motif shared by plant resistance gene products and regulators of cell death in animals," <i>Curr. Biol.</i> 8:R226-R227 (1998).	
	**42	Xie et al., "MNDA dimerizes through a complex motif involving an Nterminal basic region," <i>FEBS Letters</i> 408:151-155 (1997).	
	**43	Genbank Accession Number: 4557743	
	**44	Genbank Accession Number: 5094556	
	**45	Genbank Accession Number: 7019331	
	**46	Genbank Accession Number: 7689912	
	**47	Genbank Accession Number: 7020664	
	**48	Genbank Accession Number: 7382417	
	**49	Genbank Accession Number: 2335202	
	**50	Genbank Accession Number: 7690109	
	**51	Genbank Accession Number: 8099799	
	**52	Genbank Accession Number: 8655944	
	**53	Genbank Accession Number: 7662386	
	**54	Genbank Accession Number: 5902751	
	**55	Genbank Accession Number: 2833279	
	**56	Genbank Accession Number: 6523868	
	**57	Genbank Accession Number: 3483677	
	**58	Genbank Accession Number: 10440263	
	**59	Genbank Accession Number: 14731965	
	**60	Genbank Accession Number: 2335202	
	**61	Genbank Accession Number: 15488764	
	**62	Genbank Accession Number: 202805	
	**63	Genbank Accession Number: 9211204	
	**64	Genbank Accession Number: 3483677	
	**65	Genbank Accession Number: 15488878	
	**66	Genbank Accession Number: 14779455	
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	**68	Genbank Accession Number: 14488058	
	**69	Genbank Accession Number: 11096298	
	**70	Genbank Accession Number: 9802275	
	**71	Genbank Accession Number: 9863861	
	**72	Genbank Accession Number: 986863	
	**73	Genbank Accession Number: 10835255	
	**74	Genbank Accession Number: 10801601	
	**75	Genbank Accession Number: 7020146	
	**76	Genbank Accession Number: 14779447	
	**77	Genbank Accession Number: 13325315	
	**78	Genbank Accession Number: 15215377	
	**79	Genbank Accession Number: 11230601	
	**80	Genbank Accession Number: 9937751	
	**81	Genbank Accession Number: 14758026	
	**82	Genbank Accession Number: 15193291	
	**83	Genbank Accession Number: 13182796	
	**84	Genbank Accession Number: 14731965	
	**85	Genbank Accession Number: 14731967	
	**86	Genbank Accession Number: 4757727	
	**87	Genbank Accession Number: 3341995	
	**88	Genbank Accession Number: 10440263	
	**89	Genbank Accession Number: 14253110	
	**90	Genbank Accession Number: 9153913	
	**91	Genbank Accession Number: 1383656	
	**92	GenBank Accession No.: AF442488	
	**93	GenBank Accession No.: AC022066	
	**94	Genbank Accession Number: BE278926	
	**95	GenBank Accession No.: P29315	
	**96	Genbank Accession Number: W73523 (GI:1383656)	

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